

MEDICAL RESEARCH--FACT AND FANTASY

Remarks of U.S. Representative John E. Fogarty
At the 1963 Albert Lasker Medical Research Awards Luncheon
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I feel greatly privileged to address the Lasker award group a second time.

We meet today for a happy purpose.

We meet to honor the splendid achievements of three of our finest medical scientists. Through these three, we honor our entire medical research community.

The occasion is one for warmest thanks to Dr. Craig, Dr. Huggins, and Dr. DeBakey.

It is equally a time for self-congratulation among the thousands of scientists in our medical research community. For what honored gain in science is not a community as well as an individual achievement?

I see a third purpose for which this occasion is appropriate: That purpose is sterner; but surely the moment is a bracing one:

We need to face--and to take up with spirit--a new challenge:

Cold winds are rising. I am sure we all feel them. These winds carry voices of distrust, misunderstanding--even outright disparagement--of our national science programs.

These voices challenge the one fact I am sure most persons here today see as our Nation's brightest hope: That Science and Government at last have found the will and means to join in common purpose--that in broadening fields, they now work to meet the needs and aspirations of all the people.

What can these voices say to impeach such a partnership of hope? Many things, apparently. They urge a startling catalogue of fears. I hardly recognize the moonscape described--but understand it is supposed to be the United States of America.

Big Science--these voices say--has been corrupted into partnership with Big Government. From such an alliance--so the fear runs--our universities, our individual scientists, our traditions of scientific excellence--and ultimately all of our citizens--will be the losers. How can this be?

Does this describe the world of health research as you know it today?

The distortion is gross. But we cannot for that reason ignore these voices.

If we are complacent--if we do not react; if we do not make absolutely clear the vital and fruitful nature of this partnership--many health gains that we now count for the future may be lost.

Let us therefore take up the challenge on the issues--and give back fact for fantasy. Nor need we be diffident in the task: For the fruits of medical research are worth our best efforts to defend. Here, we can draw encouragement from illustrious predecessors in this task. For the record of health advances through science--and I can note Pasteur and the germ theory of disease as an example--shows that all too often they have been fought to accomplishment against strong opposition.

I say: Let us listen to these voices. But let us listen carefully. Not every critic merits a reply.

Let us not be taken in by critics without credentials.

We will talk budgets--but let it be with those who know we budget to meet human needs as best we can; not to defend a line drawn in sand.

We waste our time--with those who see only gloom and doom when the Government joins any enterprise;

--with those who make large charges with small facts or none to back them;

--with those who suffer from a hopeless case of nostalgia for a simpler past;

--with self-called "critics" who know--if nothing else--the publicity value of attacking major Federal programs.

Let us by all means tune out these empty words. What remains--honest differences on needs, hopes, methods, and dangers in Government support for Science--demands the wisest, clearest thoughts that each of us can phrase.

Today, I want to take up this dialogue on three issues--the three that I see as basic in Government support of Science:

First, how can we know whether our National investment in research is too little, too much, or just about right?

Second, are we getting a fair return on our investment?

Third, are tax dollars becoming a threat to research excellence?

Let me shrink this dialogue to terrain I think we all know fairly well: The area of Federal support of medical research--the programs of the Public Health Service.

How does one decide the right amount of public funds to make available for the conduct and support of medical research?

I feel I have some competence on that point: For seventeen years--in annual appropriation hearings for the Public Health Service--I have been asking myself that very question. The consensus on these programs--in both Houses of Congress and on both sides of the aisle--has been remarkable. Reasons for this--I think--won't be hard to identify.

First, the decision process itself:

In our Federal system, the decision to use public funds is practical and political. It is made in Congress by elected representatives of the people. All Federal programs must pass at least two tests on which representatives judge merits as best they can.

First is the test of usefulness to the people. I know of no other basis for providing support from public funds. As the need met is great, and the constituency served is broad, the decision to support becomes easier. Once past this basic hurdle, each program--in varying degree--competes with all others for public support. This competition involves comparison of merit, the assessment of importance, a judgment on both short and long-range gains.

There is nothing to be taken for granted in this process. There is no magic, no favored names or programs that guarantee results. The review is searching--the debate demanding--and the result unpredictable.

I hope that what I have said leaves one fact clear: The growth in Federal support for medical research is no accident; it derives from

no legerdemain: It reflects deliberate National decision to invest National resources to solve health problems.

Now I will talk about the health research programs themselves. For in the nature and purpose of these programs, the reasons for this National decision become clear.

The basic force behind our National health research programs arises from a very simple fact: No other Federal program aims so clearly and directly at ends good in themselves. None showers benefits more generously on all members of society.

Emerson described health as our "first wealth." And so it is. I think you will also remember the words of President Kennedy in his magnificent health message this year: "Good health for all our people is a continuing goal. In a democratic society, where every human life is precious, we can aspire to no less."

The objective of saving lives and relieving suffering is one behind which all Americans have gladly united. To these humanitarian benefits, medical research adds incalculable economic gains. We count these gains when disease and disability are diminished--when premature death is forestalled--and as a longer, more productive life span becomes the rule. Finally, medical research is a revolutionary force. It broadens horizons for all persons living. For the future, it promises generations bred to a new splendor.

Truly, in terms of what it can add to the sum of human goods, no limits can be set on medical research.

Practically, then, in drawing up a health research program, one begins with needs that have no horizon. Beyond conquest of disease and suffering, lies the aging process itself. Beyond the problems of our biologic disability lies the threat of our man-made environment. Beyond needs of our own generation, lies the challenge of healthier and more intelligent generations for the future.

However, we can only attack these problems where present knowledge permits. For our programs, the most promising opportunities--the essential next steps--must be identified. We need this for basic science areas, for disease research, for the problems of environmental assault. This identification of research opportunities must be both practical and informed. For this identification, the Congress has rightly insisted on the best scientific advice available in this Nation.

Below this level of scientific opportunity--a long step down--is the level of practical capability. This brings us to the thorniest problem of all: The problem of resources--the shortage of scientists and facilities.

To raise capability to the level of opportunity, and opportunity to the level of National goals, we must have a much stronger resource base than I see in prospect.

The main decisions made each year on Federal medical research programs turn on this point: What is the best balance we can strike between research and research resources--between opportunity and capabilities?

In Congress, we listen to the best scientific advice we can get on this problem; and we get this advice in breadth and depth. Then our Committee acts.

If there is a better basis to appropriate funds for a Federal program, I haven't heard it yet.

I promised today to tackle another question as well: Are we getting a fair return on our National investment in health research?

This too, is one of the questions about NIH programs that I have been asking myself for each of the past seventeen years.

My answer--for yesterday and today--can only be an emphatic yes!

Let me make clear what my answer means:

One can't--in a literal sense--buy research progress. However, one can buy the probability of progress. This fact has guided our National investment in health research.

How have we bought this probability?

By investing in the health research community as a whole! We invest to encourage excellence and to shore up weaknesses; to assure support for research ideas considered of merit by the community; and to strengthen biomedical resources for the future.

For investment payoff, therefore, we look to the total community. Exclusive "credit" for specific gains is neither the objective nor the measure. The evidence sought is that with rising Federal support, the level of research productivity also rises overall--and that there is a clear gain in potential.

What then are the community gains that our National investment--
public and private--has helped make possible?

I note:

- An increase of seven years in average life expectancy during
the eighteen years ending in 1961;
- Maternal deaths, and deaths from polio, influenza, tuberculosis,
whooping cough, syphilis and others, reduced 75% or more over
a ten to seventeen year period;
- Drug research has brought new hope for the mentally ill; and
has reversed the trend of population growth in State Mental
Hospitals.
- Vaccine research and development is arming man against a
lengthening list of diseases;
- Through new techniques, cardiovascular surgeons now correct
congenital defects and disease-damaged hearts recently thought
beyond repair;
- Possibilities of virus causation of cancer are being explored
systematically;

(Permit me to inject on this point my own personal belief--
that in this relationship lies our brightest present hope
for future breakthroughs on the cancer problem.)

- "Cracking of the genetic code"--the clarification of how we
inherit characteristics--promises a new world for biology--and
possibly for man.

But perhaps the clearest gain is in the competence and promise of the health research community itself. Beyond a doubt, this is the finest, most dynamic, most productive health research community in the world--with excellence and leadership proven. For dramatic illustration of that leadership, one need look no further than to the work for which the awards are made today. Against competition from other fields of science, the health research community has staked a firm claim that this will be known as the Age of Biology.

I note two other gains that have been insufficiently appreciated: First: Research has revolutionized the character of medical practice in this country. Through new personal skills and knowledgeability, through new tools and treatments, the effectiveness of individual practitioners has been multiplied several times. This fact should be noted by those who argue that research is draining physicians away from medical care.

Second: Medical research has speeded and assured the transformation of our medical schools. No longer are they trade schools, as Abraham Flexner found them 50 years ago. They have become rounded, stimulating educational institutions--with graduate as well as undergraduate functions--covering the full spectrum of health sciences.

The third proposition I want to talk about is whether growing government support is a threat to research excellence.

I understand the basis of this concern. But let me sum up why I see no threat to excellence in health research today.

First: The poisonous touch of government support has been much exaggerated. Even complete dependence on that support needn't rule out research excellence. The proof of this is in the accomplishments of the Government's own research laboratories--I cite the early laboratories of the Public Health Service. I cite also the laboratories of NIH at Bethesda, which clearly constitute the finest biomedical research institution in the world.

Second: To those who insist on diversity of support to insure excellence, I point out this: For health research, the dollar support from voluntary health foundations, the pharmaceutical industry and private gifts grows yearly. This diversity of support will not be ^{found} in other fields of science. The physical sciences, and the technologies of space, electronics and aerodynamics depend on the Government for a much greater percentage of their total needs.

Third: The criterion of excellence governs all decisions to support research through NIH programs. The scientific community itself--through Study Section and Council review--establishes that standard of excellence. It also makes the decision to support or not. Under this system, 50% and more of the research projects proposed are rejected; almost 60% of the funds requested are disallowed.

Some persons, however, would confine PHS support to the top 10 or 25% of applications received--those with 24 carat guarantees of excellence. For private foundations--with limited goals and responsibilities--this works well enough. But frankly, I don't see that as a feasible or

sensible basis on which to mount a national research effort to solve major disease problems.

It would mean, in all probability:

That difficult, unrewarding but essential research tasks would not be undertaken;

That unconventional approaches wouldn't be tried as often;

That bright but new scientific talents would have less chance to prove their worth;

That a few of the older and more solid universities and research institutions would monopolize public support;

That growing centers of research excellence throughout the country would be left to wither.

I myself have no doubts that the health needs and health hopes of the Nation are much more likely to be met--and met more quickly--as programs now operate.

I have always acted on the principle that budgetary anemia--induced by cynicism--is an attribute of materialism. It contradicts the notion in our society that the life and well-being of a single individual--extended, restored, or eased by the scientific dedication of his neighbors--is a richness beyond all value, a prize without price.

To me, research is the pursuit of truth, the reduction of error, the discovery of new concepts of man, life, and the universe. As we limit the span of uncertainty in the cause of death and illness and

extend and enrich the span of life, we act in the highest ideal of government, in the service of the governed, and in the best tradition of public, private, and individual enterprise.

Ladies and gentlemen, I stand before you in deep conviction that the National interests in medical research have been and are well served.

I reject out of hand the imputations that generous Federal support has compromised science, scientists or the qualitative framework of administration.

I have profound faith that what has been wrought in this postwar effort in medical research will emerge as the most significant Federal action of our era.

It is with this optimism, founded in seventeen years of continuous involvement in the critical Congressional process of assessment, debate and decision, that I confront--and hope that I confound:

The old men beset by little fears;

The alarmists prophesying ominous futures;

And the disparagers of men of good faith and programs of great purpose.